WHAT IS CLAIMED IS:

1. A process for making partially cooked ground dehulled Masa dough, the process comprising:

removing hull and tip cap from whole corn to provide a decorticated corn;

grinding the decorticated corn to provide a ground decorticated corn;

mixing the ground decorticated corn with water to provide a moisturized milled decorticated corn having a moisture content of at least about 20 weight percent;

cooking the moisturized ground decorticated corn with direct and indirect heat for a time and temperature which is effective for gelatinizing from about 10 to about 50 weight percent of the starch in the moisturized, ground decorticated corn to provide a partially gelatinized Masa dough.

2. The process as recited in claim 1 further comprising drying the partially gelatinized Masa dough to a moisture content of not more than about 15 weight percent moisture to provide a dried, cooked Masa dough.

3. The process as recited in claim 2 further comprising sizing the dried, cooked Masa dough to provide a sized cooked Masa dough having a particle size of from about 16 mesh to about 100 mesh.

4. A process as recited in claim 1 wherein the ground decorticated corn which is mixed with water is hydrated in the water for at least about 10 seconds at a temperature of at least about 10°C to provide the moisturized milled decorticated corn prior to cooking the moisturized milled decorticated corn.

5. A process for making Masa dough from whole corn which process utilizes at least about 40 weight percent of the corn which is inputted to make the Masa dough, the process comprising:

removing hull and tip cap from whole corn to provide a decorticated whole corn without a hull and a tip cap, the decorticated corn having at least about 75 weight percent starch;

grinding the decorticated whole corn to a particle size of not more than about 100 U.S. Mesh to provide and endosperm/germ flour;

hydrating the endosperm/germ flour with water to a moisture level of at least about 20 weight percent, based upon the weight of the endosperm/germ flour and water to provide a hydrated endosperm/germ flour;

cooking the hydrated endosperm/germ flour with indirect heat and direct heat to partially gelatinize starch in the flour such that from about 15 to about 50 weight percent of the starch in the flour is gelatinized to provide the Masa dough which if dried would provide a Masa flour yield of at least about 90%, based upon the weight of the Masa flour over the weight of the whole corn inputted to make such flour.

6. The process as recited in claim 5 wherein the decorticated corn has at least about 8 weight percent germ.

7. The process as recited in claim 6 further comprising drying the Masa dough to a moisture content of not more than about 15 weight percent moisture to provide a dried Masa flour.

8. The blend process as recited in claim 7 further comprising milling and sizing the dried Masa flour to a

particle size of from about 16 mesh to about 100 mesh.

9. A process for making Masa dough from whole corn, the process comprising:

removing hull and tip cap from whole corn to provide a decorticated corn consisting essentially of endosperm and germ, the decorticated corn having at least about 75 weight percent starch and at least about 8 weight percent germ;

grinding the decorticated corn to a particle size of not more than about 100 U.S. Mesh to provide and endosperm/germ flour;

hydrating the endosperm/germ flour with water to a moisture level of at least about 20 weight percent, based upon the weight of the endosperm/germ flour and water to provide a hydrated endosperm/germ flour;

cooking the hydrated endosperm/germ flour with indirect heat and direct heat to partially gelatinize starch in the flour such that from about 15 to about 20 weight percent of the starch in the flour is gelatinized to provide a Masa dough which if dried would provide a Masa flour yield of at least about 90%, based upon the weight of the Masa flour over the weight of the whole corn inputted to make such flour.